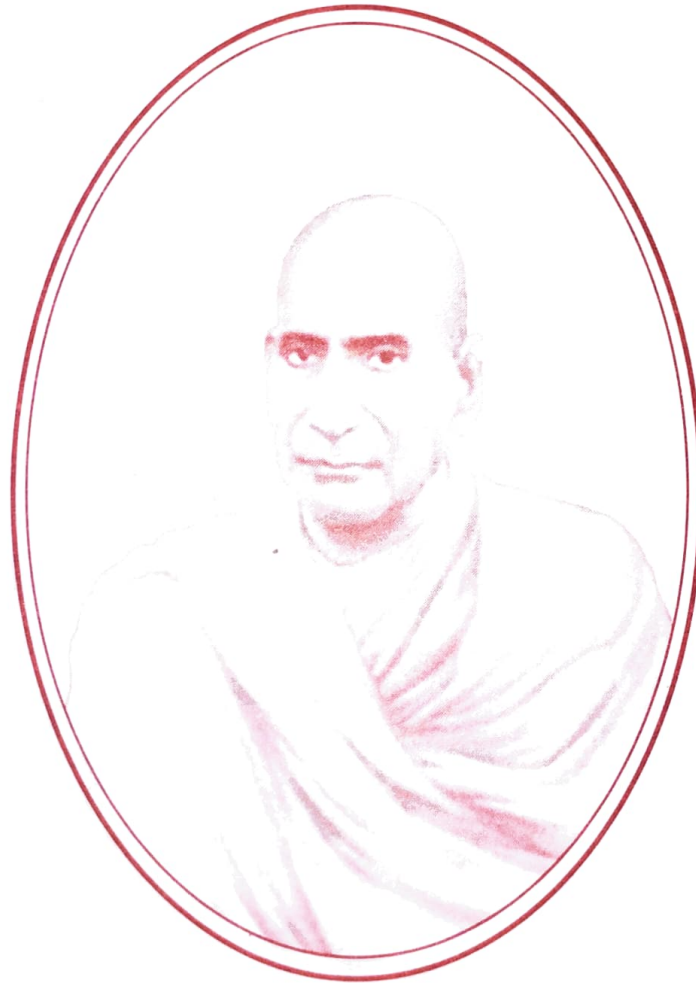


ARYAN HERITAGE



Swami Shraddhanand

THIS ISSUE'S HIGHLIGHTS

My Father's Last Testament
Prof. Inder Vidya Vachaspati

Material Spiritualism
Satyavrata Siddhantalankar

Understanding Essentials of Combustion in Agnihotra
Ish Narang

Brotherhood of Man and Fatherhood of God
Kanayalal M. Talreja

Editorial Board

Shri Punam Suri, *President, DAVCMC*

Shri Ajay Suri, *General Secretary, DAVCMC*

Dr Virendra Vidyalankar

Shri Vikram Viveki

Editor: Surinder Kumar Sharma

Price: Per Copy Rs. 20/-; Annual Subscription Rs. 225/-;
Foreign Subscription: Annual Subscription by Sea mail
\$ 18, by Airmail \$ 30

*Disclaimer : The views and opinions expressed in the
articles published in this magazine are those of the authors
and do not necessarily reflect the official policy or position
of D.A.V. College Managing Committee*

Printed and Published by Surinder Kumar Sharma for
and on behalf of D.A.V. College Trust and Management
Society and printed at Laxmi Print India, 556, G.T. Road,
Shahdara, Delhi-110032 and Published from D.A.V.
College Managing Committee, Chitragupta Road,
Paharganj, New Delhi-55. Editor: Surinder Kumar
Sharma

ARYAN HERITAGE

December 2022

CONTENTS

- Vedic Prayer 4
- My Father's Last Testament 5
Prof. Inder Vidya Vachaspati
- Relevance of Sanskrit in Present Times 6
Dr. L. M. Singhvi
- Understanding Essentials of Combustion
in *Agnihotra* 9
Ish Narang
- Vedic Concept of Total Liberation 12
Inder Dev Khosla
- Material Spiritualism 15
Satyavrata Siddhantalankar
- Shikakai for Healthy Hair 19
Dr. Harshita Rana
- Brotherhood of Man and
Fatherhood of God 21
Kanayalal M. Talreja
- प्रसिद्ध दार्शनिक प्रो. दीवानचंद 25
डॉ. भवानीलाल भारतीय

ACKNOWLEDGEMENT

We thank the writers whose writings have
appeared in this issue as also the journals
from where reproductions have been made.

—Editor

• ओ३म् •

Vedic Prayer

वैदिक प्रार्थना

स नो बन्धुर्जनिता स विधाता धामानि वेद
भुवनानि विश्वा ।
यत्र देवाऽअमृतमानशानास्तृतीये धामन्मध्येरयन्त ।।

—यजु. 32.10

Thou art our father,
our friend, our anchor
and our creator.

Thou knowest whatever is
happening
And one can reach the
Destination only with Your grace.

तू हमारा बन्धु प्यारा, तू हमारा जन्मदाता
तू सहारा, तू अधारा, तू हमारा है विधाता ।
विश्व में जो कुछ जहां है, ज्ञान उस सबका तुझे है
लक्ष्य तक वह ही पहुंचता राह तू जिसको दिखाता ।

My Father's Last Testament

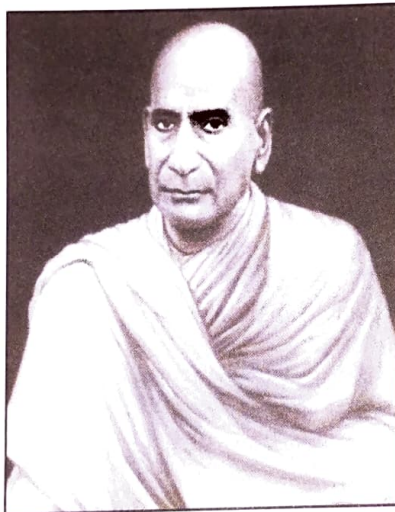
(Late) Prof. Inder Vidya Vachaspati
Ex. MP and former Vice-Chancellor, Gurukul Kangri

We, both the sons, of Swami Shraddhanand, were in the first batch of students when Gurukul Kangri was established by our father. There was still one year for our graduation. One early morning at about 4 AM, an attendant woke us up as our father wanted us to come to his room immediately. We also learnt from the attendant that our father did not have a wink of sleep all night as he was strolling restlessly in his room and also jotting down certain notes.

As both of us entered his room, he was still strolling with his forearms resting at his back as was his wont. There was a certain peaceful glow on his face. He looked at us and sat on his chair. He pulled out a foolscap page written in his own handwriting from the drawer and placed this paper before us and said, "Both of you should read it carefully and if you agree with what I have written in this document, please put your signatures on it."

The document read as follows:

"I, Swami Shraddhanand had devoted all my life to the cause of Vedic Dharam. I am a follower of Swami Dayanand and as ordained by him, I have established this Gurukul Kangri to propagate the Vedic concept of real education so that a new breed of youngmen infused with Vedic culture and patriotism can come out of the portals of this



Gurukul. I have spent all my strength for this noble cause but now I have a feeling that my attempt has been half-hearted as I have not given away everything that I possess for the cause which is so dear to me. I still own a bungalow at Jalandhar which is not a hereditary property as I have built it with my own earnings. The attachment that I have with this property should not be there. So, by signing this document of relinquishment, I donate this *Kothi*, the only property left with me, to Arya Pratinidhi Sabha, Punjab for the cause of Gurukul."

When I and my brother had gone through the document, father asked us whether we had any objection in being signatories to this document as otherwise both of us would have inherited this property. In this

context, let me say that sometime earlier, he had drafted his Will wherein both of us were to share this property in equal parts. With this Deed of Relinquishment, we had agreed to forgo our right even on this last property of our father. Both of us immediately signed the document. At this point, Swamiji said, "It is your free choice to withdraw from signing if you do not feel like losing this property as there is no other asset with me that will come to you by inheritance. Both of us gave our total consent for it and left his room while he was deeply engrossed in his thoughts.

The annual function of the Gurukul was to take place the next day. The *pandal* was brimming with enthusiastic Arya Samajists who had come from far and near to participate in the annual function. An elaborate Yagya was being performed. After it was over, Swamiji went straight to the podium and in his impressive and impassioned voice spoke as follows:

"I must share with you the turmoil of my conscience when I thought that I have not offered 'purnahuti' (total sacrifice) as I still had kept with me a property which now I have donated to the cause of the Gurukul which is so dear to me and by God's grace, both my sons have agreed to this. I feel light-hearted standing before you and have a sense of fulfillment and satisfaction." □

Relevance of Sanskrit in Present Times

Dr. L. M. Singhvi

I speak to you at a time when the world is in the midst of a major international conflict, the first of its magnitude in the third millennium of the Christian era. That conflict is symptomatic of the failure of diplomacy and the collapse of the UN Collective Security System as well as International Law. The world is in the throes of a crisis because we have failed to create enduring defences of peace in the minds of men, women and children throughout the world, where wars begin, and because despotic and oppressive regimes and the unilateral unipolarity of a superpower are neither responsive nor accountable in the forum of humanity's conscience or in the structures of international law and morality. *Bhartiya Vidya* and its nuclear philosophy have a fundamental contribution to make to the *basic peace process* in the human mind and between the nations and the peoples of the world. In our pursuit of peace, we need the holistic core of the value system which distinguishes the concept of *Vidya* in *Bharat*, for peace is not possible without *Abhaya* or Freedom from Fear and Freedom from want. Nor is *Abhaya* possible without Non-violence, without a universal sense of friendship and forgiveness, without eradicating poverty, destitution, exploitation and oppression and without looking at the world with friendly eyes (*Mitrasya Caksusa Samiksamahe*-मित्रस्य चक्षुषा समीक्षामहे). In the dialogue among civilizations and cultures, which is the only way to resolve the acute problems of our world. *Bhartiya vidya* and values can

infuse new cultural catalysts and help to reshape the framework, the ground-norms and the process of dialogue, more appropriately called *Samvada* (संवाद) in our traditional vocabulary.

Let us remember on this occasion Mahatma Gandhi's words of wisdom that the Past belongs to us but we do not belong to the Past. We cannot allow ourselves to be prisoners of the past. Nor can we afford to forget or neglect our precious past. We must therefore preserve and perpetuate the best of the Past in the Present and use its building

While we should allow the breeze to blow from all sides, we must not be swept off our feet. We must also stoutly reject in the same breath the colonial thesis propounded by the likes of Charles Grant in 1772 and Trevelyan and Macaulay whose hostility to oriental learning and Sanskrit language was marked by a fatal combination of crass and abysmal ignorance and errant and reckless arrogance. To his eternal infamy. Macaulay went to the extent of saying that "a single shelf of a good European library was worth the whole native literature of India and Arabia.

blocks in raising the edifice of the Future on the basis of the fundamental precept that we welcome noble ideas from everywhere in the world (*Aa no bhadrah kratvo yantu viswatah*)

"आ नो भद्राः क्रतवो यन्तु विश्वतः।"

While we should allow the breeze to blow from all sides, we must not be swept off our feet. We must also stoutly reject in the same breath the colonial thesis propounded by the likes of Charles Grant in 1772 and Trevelyan and Macaulay whose hostility to oriental learning and Sanskrit language was marked by a fatal combination of crass and abysmal ignorance and errant and reckless arrogance. To his eternal infamy. Macaulay went to the extent of saying that "a single shelf of a good European library was worth the whole native literature of India and Arabia." Although Macaulay's minute finally prevailed in the official British policy, it is noteworthy that in 1935 when Macaulay wrote his Minute, A. Frazer wrote in the same year in his Report on the Sanskrit College, Calcutta (31st January 1835); "The acquisition of Sanskrit is indispensable not only for the study of the classical works composed in that language, but principally as the mother-language of a great number of Indian dialects (sic.).... It is true and obvious that a true and radical reform of a nation in learning and morality (which is the object of a good government) will begin and proceed with the improvement of their own national language (emphasis added) Even five years later, in 1840,

Captain Candy Superintendent of Public Instruction observed in his Report on the Poona Sanskrit College : Sanskrit I conceive to be the great reservoir from which strength and beauty may be drawn for the vernacular languages ... I look on every native who possesses a good knowledge of his own mother tongue, of Sanskrit and of English, to possess the power of rendering incalculable benefit to his countrymen." (emphasis added)

Frazer and Candy were in fact carrying on the legacy of Sir William Jones and Sir Charles Wilkins who were among the pioneers of Western Sanskrit scholarship and Indology. Jones and Wilkins took the initiative to establish the Asiatic Society at Calcutta in 1784. The same year, Wilkins translated Bhagavat Gita in English for the first time, and the then Governor General Warren Hastings proclaimed that it was one of the greatest books he had come across. Sir William Jones established by his seminal work the hoary antiquity of Sanskrit literature and the similarities between Egyptian, Greek and Indian traditions including the Egyptian, Hindu and Greek pantheons. His prolific contribution in presenting ancient Sanskrit literature to the Western world remains a historic benchmark. The great German poet Goethe was in raptures on reading his rendering of Kalidasa's *Abhijnana Sakuntalam*. In a memorable accolade, Goethe said "I NAME THEE O SAKUNTALA AND ALL AT ONCE IS SAID"

In 1786, Jones declared to the Asiatic Society: "The Sanskrit language, whatever be its antiquity, is of wonderful structure, more perfect than Greek, more copious than Latin, and more exquisitely refined than either, but bearing to both of them a stronger affinity both in the roots of verbs and the forms of grammar than could possibly have been produced by accident, so strong indeed that no philologist could examine them at all without believing

It is regrettable that the teaching of Sanskrit is opposed on the ground that it is a dead language and that it is only the language of the sacred and ritual literature of the Hindus. Those arguments have only to be stated to be rejected. Sanskrit is the living legacy of the heritage of India. It is the encyclopedic repository of our culture. And it would be errant nonsense to say that Sanskrit is only the language of Hindu ritual

them to have sprung from some common source, which perhaps no longer exists.

Jones added Gothic, Celtic and old Persian to the same family. We know that a much larger cluster of languages in the world are linked to Sanskrit. My own teacher and the great doyen of Sanskrit and Indian studies, Professor Ksetrescandra Cattopadhyaya demonstrated the closest commonality between Veda and Avesta in his work *Vedavittaprakacika*. The debt the tree of knowledge in the world and the global tree of human speech and expression owes to Sanskrit is so large that it would take many volumes to describe it and to document it fully.

It is regrettable that the teaching of Sanskrit is opposed on the ground that it is a dead language and that it is only the language of the sacred and ritual literature of the Hindus. Those arguments have only to be stated to be rejected. Sanskrit is the living legacy of the heritage of India. It is the encyclopedic repository of our culture. And it would be errant nonsense to say that Sanskrit is only the language of Hindu ritual, for it

is in Sanskrit that we find the eloquent testimony of India's philosophical depth, literary creativity, ethical rectitude, humane and compassionate perspective of life and pioneering scientific discovery and innovation.

In an anonymous but popular *Prasnottari*, questions are asked and answered thus to tell us of the place of Sanskrit in the civilization of the world and in India's heritage, culture and sense of identity:

इह सकल भाषाजन्मदा का? भाम्बती सुरभारती
वद, वेदजननी का? जगद्योजस्वती सुरभारती।
अनुपमसरस-साहित्य-धनिका का? सती सुरभारती
वद् भारतानुगता भवेत् का भारती? सुरभारती।।

The same thought is expressed by Sri Bhatt Mathuranath Sastri in his *Govind Vaibhava* :

यया लोके वेदाः परिकलितभेदाः प्रकटिताः
स्मृतीनां धात्री या प्रसवनकरी योपनिषदाम्।
समस्तत्रैलोक्ये ह्युपदिशति याऽऽव्यात्मिकपथं
स्फुरद्व्यज्योतिर्जगति जयतान्निर्जगति।।

Sri Haridasa Siddhantavagish gave expression to a fundamental socio-linguistic and cultural concern when he said that if Sanskrit which is the root language for the languages of India disappears, so will the Indian languages which are its branches languish;

भाषाणां भारतीयानां मूलमेकं हि संस्कृतम्।
मूललोपे च शाखेव सा सर्वा शोषमेष्यति।।

Indeed, it would be no exaggeration to say that Sanskrit language and Samskriti (which may be translated as heritage or culture) are so completely intertwined that Sanskrit defines, annotates and unravels the collective heritage persona of Indian people to a large extent. Dr. Sridhar Ketkar put the thought succinctly in the following verse:

जातिराष्ट्रादिसंघानां साकल्यं चरितस्य यत्।
व्यक्तं संस्कृति-शब्देन भाषाशास्त्रात्मकं ननु।।

When India attained freedom, although it was accompanied by the tragedy of the Partition, we had high

hopes for the creative consolidation and for the revival and renaissance of our heritage which had inspired our struggle for freedom. We longed to regain the pride and the glory of India which had been eclipsed by many centuries of alien onslaughts and colonial domination. At the dawn of our Independence, we heard the clarion call of free India making its tryst with destiny, but Sanskrit was not on the national agenda. Sanskrit remained in the backyard although it was universally regarded as the sheet anchor of our heritage. Our hopes for Sanskrit were somewhat rekindled when the then Union Minister for Education and Scientific Research, Maulana Abul Kalam Azad appointed a Sanskrit Commission under the chairmanship of the great linguist Dr. Suneeti Kumar Chatterjee. The Commission's report noted that there was a feeling of disappointment among the people that, while no positive steps had been taken for helping Sanskrit, the measures undertaken in respect of other languages had had adverse repercussions on Sanskrit. The Commission noted with dismay that "the ultimate result of this has been that Sanskrit has not been allowed to enjoy even the status and facilities it had under title British Raj", (emphasis added) The Commission quoted an old verse to portray the distraught feeling of the people in respect of Sanskrit:

रात्रिर्गमिष्यति भविष्यति सुप्रभातं
भाम्यानुदेष्यति हसिष्यति पङ्कजश्रीः।
इत्थं विचिन्तयति कोशगते द्विरेफे
हा हन्त हन्त नलिनी गज उज्जहार॥

"The night will pass and the bright day will dawn; the sun will rise and the lotus will bloom in all its beauty—while the bee, imprisoned in a closed bud, was thus pondering over its future, alas an elephant uprooted the lotus-plant itself."

...To be continued in next issue

(Excerpts from Convocation Address delivered at Rashtriya Sanskrit Vidyapeetham, Tirupati in 2005) □

The Central Purpose of The Bhagavad Gita

Dr. S. Radhakrishnan

The *Bhagavad Gita* which forms part of the *Bhishmaparva* of the *Mahabharata* is the most popular religious poem of Sanskrit literature. It is "the most beautiful, perhaps the only true philosophical song existing in any known tongue."

It is a book conveying lessons of philosophy, religion and ethics.

Yet if the hold which a work has on the mind of man is any clue to its importance, then the *Gita* is the most influential work in Indian thought. Its message of deliverance is simple. While only the rich could buy off the gods by their sacrifices, and only the cultured could pursue the way of knowledge, the *Gita* teaches a method which is within the reach of all, that of *Bhakti*, or devotion to God.

From the second chapter onwards we have a philosophical analysis. The essential thing in man is not the body or the senses, but the changeless spirit. The mind of Arjuna is switched on to a new path.

The life of the soul is symbolised by the battlefield of Kurukshetra, and the *Kauravas* are the enemies who impede the progress of the soul. The message of the *Gita* is universal in its scope. It is the philosophical basis of popular Hinduism. The *Gita* appeals to us not only by its force of thought and majesty of vision, but also by its fervour of devotion and sweetness of spiritual emotion.

The *Gita* attempts a spiritual synthesis which could support life and conduct on the basis of the *Upanishadic* truth, which it carries into the life-blood of the Indian people.



Understanding Essentials of Combustion in Agnihotra

Ish Narang

Combustion is said to occur if a fuel is oxidised (generally by the atmospheric oxygen) giving rise to thermal energy. Simply presence of the fuel and oxygen does not lead to combustion. For example there are fuel and oxygen present in the fuel tank of a car but no combustion takes place unless ignited by a spark plug. Once the combustion takes place, thermal heat, inherent in that particular fuel, is produced. This gives rise to increase in temperature.

Some fuels release much more energy than others. Hydrocarbons/ Fossil fuels such as methane, propane, gasoline, diesel, and coal etc. have thermal energy in the range of 10,000 calories per gram of fuel. Whereas calorific values of cellulose materials, wood/firewood may be around 3000 calories. Upon combustion (that is, oxidation by atmospheric oxygen), the final temperatures reached by burning fossil/hydrocarbon fuels may be as high as 2500 degree Celsius against about 800-1000 in case of cellulose fuels. A Table showing comparison between the two types of fuels is given below:

Products of Combustion:

A number of complex biochemical reactions take place during combustion in *Agnihotra*. The interpretation of the complete process of combustion in a *Yajna* on a scientific basis is rather difficult due to the various reasons. Some of these are (i) the properties of

substances, which are used are different every time (ii) the conditions under which combustion takes place inside the *Yajna-Kund* are very sensitive to the shape of the kund and the type/quantity and arrangement of *Samidha* i.e. pieces of wood in the kund; (iv) the variation in the temperature and thermodynamic effects is quite significant from the top to the bottom of the Kund and it also depends upon the shape and size of the latter. The products of combustion, therefore, depend on the factor like - (a) The nature of substances used and their proportions; (b) temperature attained; (c) controlled supply of air/abundance or deficiency in the availability of oxygen (d) manner of arranging of *samidhās* in the *Kund* (e) moisture content of wood (f) shape of the Kund and (g) Interaction amongst the

various intermediate products of combustion.

Upon complete combustion, we expect formation of carbon dioxide and water vapour as the products. Due to various reasons, including the deficiency in the availability of oxygen, some fuel may remain unburnt, or may get only partially oxidised to carbon monoxide. Unburnt fuel and carbon monoxide are considered undesirable pollutants for the atmosphere. Further, high temperatures in the range of 2000 degree Celsius or above may produce oxides of nitrogen (another undesirable pollutant) from the atmospheric nitrogen and oxygen.

Combustion in Agnihotra:

Agnihotra consists of a base fire generated in a specially designed vessel built/ fixed on the surface of

Table I

Sl. NO.	Substances	Wood*	Fossil Fuels Coal*	Fossil Fuels Petroleum**
A	Composition			
(i)	Carbon	48.51%	82%	93 to 97%
(ii)	Hydrogen	6%	5%	10-14%
(iii)	Oxygen	43%	12%	0.1 to 1.5
(iv)	Nitrogen	0.4 to 0.1 %	1%	01 to 2%
Source: * <i>Yajya Vimarsh</i> (Hindi) By Dr. Ram Prakash** Web				

B	Calorific value and temperatures attained on combustion (Dr Harish Chandra)			
(i)	Calorific Value per gram of fuel	3000	5800-6000	10000
(ii)	Temperature achieved (Degrees C)	800-1200	2000	2500

the ground which resembles and inverted Pyramid. The temperature attained by the Kund varies between 2500C and 6000C, while in the actual flames it can be as high as 8000C to 10000C. To this base fire, certain substances are added, periodically, in the form of oblations. Purified butter (Butter Oil or ghee or Anhydrous milk fat-AMF) and several herbal substances are added into the base fire. Maharishi Dayanand Saraswati (1824-83) has stated in

Satyarth-Prakash that the herbal substances to be offered as oblations in Agnihotra should be 1) wholesome, i.e. health givers, 2) anti-bacterial, 3) aroma-builders or aromatic substances and 4) sweeteners. The purpose of Agnihotra is not to burn the substances that are added in the form of oblations, rather it is to vaporize them. Thus they diffuse into the surrounding air and transform the air quality. Coupled with the buoyancy and aerodynamic effects due to the thermal energy released by the fire, the vaporised substances spread to all nooks and corners of the room. We may, therefore, say that the base fire is used to convert the herbal substances into gaseous phase, and, to aerodynamically transfer them to the surroundings in the most efficient manner.

It may happen that a fraction of the substances added as oblations do go through combustion process, especially so must be true with ghee. Their effects upon combustion are not expected to be harmful to the atmosphere because they are carefully chosen to bear one or more of the above four characteristics. Besides the complete combustion of the cellulose material of *Samidha* (wood), it is also subjected to distillation. This happens due to the way *samidhās* are arranged in the *Havan* Kund and the levels of temperature and air supply which prevail in it.

Products of Combustion -- Vaporisation of Odorous Substances

and Smoke

At their boiling points, the volatile constituents vaporise and their gaseous forms get diffused. Also, when cellulose and other carbohydrates undergo combustion, steam is formed in abundance by the combination of the hydrogen of the decomposed organic molecules with oxygen. This is how the substances like thymol, eugenol, pinene, terpinol etc., are dispersed into the surroundings and the aroma of a Yajna can be smelt/felt at a considerable distance. In addition to steam, smoke is emitted in quite large quantities and solid particles existing in a decomposed state offer sufficient scope for its diffusion. Thus smoke also functions as a colloidal vehicle for the spreading of volatile aromatic substances.

Products of Combustion - Combustion of Fatty Substances:

The fatty substances used in Yajna are mainly ghee and some fatty substances of vegetable origin. A number of useful substances are produced by combustion/evaporation of Ghee. All fatty substances are combinations of fatty acids, which vaporise easily. Ghee is arguably one of the most complex fats found in nature and varies widely from animal to animal. Ghee contains over 400 different fatty acids (Jensen and Clark, 1988), including saturated with a wide range of carbon chain length, unsaturated, trans, branched and every cyclic fatty acids.

Some of the common fatty acids found in Ghee are

- o myristic Acid
- o palmitic Acid
- o stearic Acid
- o oleic Acid
- o butyric Acid
- o caproic Acid
- o caprylic Acid
- o capric Acid
- o lauric
- o Linoleic
- o á-linolenic

On combustion and oxidation

these form hydrocarbons, aldehydes and formaldehyde. The combustion of glycerol portion gives acetone bodies, pyruvic aldehyde and glyoxal etc. The hydrocarbons produced in the reactions again undergo slow combustion and as a result methyl and ethyl alcohols, formaldehyde, acetaldehyde, formic acid and acetic acids are formed.

Cow ghee is said to be more useful and having better health properties as compared to ghee from Buffalo milk which has more saturated fatty acids as compared to Cow ghee.

Ghee helps in rapid combustion of cellulose of *Samidha*- wood also and keeps the fire alight.

Products of Combustion - Photochemical Process:

The volatile constituents start to vaporise. The vaporised products diffused in the atmosphere are also subjected to photochemical reactions in the sunlight. They undergo photochemical decomposition, oxidation and reduction reactions.

From an environmental angle, the reduction of Carbon dioxide (CO₂) caused by Yajna, as explained above, and the liberation of oxygen cannot be overemphasized. Similar other useful reactions take place in the presence of specific radiations from the sun rays. This may be one of the reasons it has been recommended that *Yajna* should be performed during sunlight. These days some scholars are propagating performance of Yajna during night times also. This is definitely not based on logical and scientific grounds.

Products of Combustion - Fumigating Substances Used in Yajna:

What is produced by Yajna depends also on the substances used and offered in the Yajna-fire. These can be broadly classified into two types: wood (*samidhās*), and a mixture of odoriferous and medicinal herbs (*Havan Saamagri*)